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SCIENTIFIC CONFERENCE ON THE METALLURGY, CHEMISTRY, AND ELECTROCHEMISTRY OF TITANIUM

- USSR -

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On 14-20 January 1960 the All-Union Conference on the Metallurgy, Chemistry, and Electrochemistry of Titanium, which summerized the results of activities during the past year and a half to two years, was conducted in Moscow at the Institute of Metallurgy of the Academy of Sciences USSR by the latter's Commission for the Coordination of Scienfific Research Work.

Taking part in the work of the Conference were approximately 400 representatives of academy and branch research institutes, plants, and higher educational institutions.

After the introductory address of Corresponding Member of the Acad Sci. USSR A. M. Samarin, a number of reports on the results of scientific research works, the state of the raw material base, the technology of various reductions of the metallurgy of titanium, etc. (corr. mem. Acad Sci USSR N. P. Sazhin, V. A. Reznichenko, S. Yu. Guz, S. Yu. Momdzhi, S. G. Glazunov, V. A. Il'ichev, etc.) was heard.

The main part of the conference's work took place in four sections: raw material and smelting of ores, chemical technology and chlorination, metallothermia and smelting of titanium, and electrolysis section.

The following reports were heard: Metallurgical evaluation of new titanium deposits (B. B. Dmitrovskiy), Status and prospects of refinement of the technology of smelting ilmenite concentrates (V. A. Reznichenko, V. I. Solov'yev), Thermodynamic studies of titanium compounds (F. B. Khalimov, V. A. Reznichenko), Study of reduction of ferro-titanium concentrates by carbon (M. B. Rapoport), Certain hydrodynamic and kinetic peculiarities of the process of chlorination of titanium dioxide in the smelting of chlorides (Kim Men-rin), Oxidation of titanium tetrachloride by oxygen (G. S. Moinov, B. N. Melent'yev, V. A. Reznichenko), Use of ilmenite concentrates for the production of titanium pigment dioxide

according to the sulfuric acid method (M. L. Borodina, S. B. Shaykevich, N. A. Gubarov), study of certain properties of the system $TiCl_4$-$AlCl_3$-$FeCl_3$ (N. K. Druzhinina), Studies of the phase equilibria liquid - steam in systems formed by titanium tetrachloride with mono- and triacetyl chlorides (G. V. Seryakov, S. A. Vaks, L. S. Sidorina), Determination of the total carbon content in titanium tetrachloride (G. V. Seryakov, S. A. Vaks, I. M. Golovanov), Basic conditions of a standard flow of the magnesium thermal process of obtaining titanium (S. V. Ogurtsov, V. A. Reznichenko, V. K. Ustinov, V. I. Kozhevnikov, A. I. Dedkov), On the two-stage method of the sodium thermal obtaining of titanium (V. A. Reznichenko, S. V. Ogurtsov), Producing titanium of high purity (V. I. Vatashev), Effect of the chlorine content in porous titanium upon the smelting process and upon the quality of the smelted metal (G. M. Vaynshteyn), Obtaining titanium and its alloys by the refining of rough anodes (academician I. P. Bardin, A. P. Khromov, V. I. Lukashin), On the theory of refining of titanium (V. A. Sukhodskiy), Obtaining titanium by its electrolysis of titanium dioxide in fluoride-chloride smelts (I. P. Bardin, A. A. Kazayn), Electrolytic production of titanium from fluoride-chloride smelts (V. M. Ioffe, N. N. Rozanov, N. A. Lyubimova), Electrolytic refining of tintaium tailings (V. M. Lozovatskiy), and a number of other reports. In addition to this, problems of a general nature on the status and prospects of development of scientific research and experimental industrial works and the metallurgy of titanium as a whole were examined.

The conference made note of the main achievements and the timeliness of the problem and endorsed the main trends in the field of investigations. At the same time allusion was made to the intolerably slow development of research work in the use of titanium, especially in chemical technology and hydrometallurgy.

The conference adopted a resolution to facilitate the further development of production and scientific research work in the metallurgy, chemistry, and electrochemistry of titanium.

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